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**Addis Ababa University**

**College of Business & Economics**

**Department of Management**

**Corporate Governance and Its Effect on Innovation in the  
Case of Private Commercial Banks in Ethiopia**

**By:**

**Wondwossen Tesfaye Chernet**

**June 2018**

**Addis Ababa, Ethiopia**

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**By:**

**Wondwossen Tesfaye Chernet**

**Id No. GSE/0637/08**

**Advisor:**

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**Department of Management**

**Statement of Declaration**

I, Wondwossen Tesfaye chernet, declare that this thesis entitled ‘**Corporate Governance and Its Effect on Innovation in the Case of Private Commercial Banks in Ethiopia**’ and the work presented in it are my own and has been generated by me as the result of my own original research. The study in which all sources of materials used has been duly acknowledged. I have produced it independently except for the guidance and suggestion of the thesis Advisor. To the best of my knowledge, this study has not been submitted for any degree in this University or any other University. It is offered for the partial fulfillment of the degree of Masters of Science in Management specialization in Total Quality Management & Organizational Excellence.

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**Addis Ababa University**

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**Department of Management**

**Statement of Certification**

This is to certify that the thesis entitled, '**Corporate governance and Its Effect on Innovation in the Case of Private Commercial Banks in Ethiopia**', undertaken by Wondwossen Tesfaye for the partial fulfillment of degree of Master of Science in Management specialization in Total Quality Management and Organizational Excellence at the Addis Ababa University, to the best of my knowledge, is an original work and not submitted earlier for any degree either at this University or any other University.

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Dr. Jemal Mohammed, Thesis Advisor

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## Abbreviations

<b>ACH</b>	Automated Clearing House
<b>ATM</b>	Automatic Teller Machine
<b>BOD</b>	Board of Directors
<b>CG</b>	Corporate Governance
<b>NBE</b>	National Bank of Ethiopia
<b>SBB</b>	Supervision of Banking Business
<b>CCG</b>	Centre for Corporate Governance
<b>CEO</b>	Chief Executive Officer
<b>PSS</b>	Premier Switch Solutions
<b>CGPR</b>	Corporate Governance Practices
<b>POS</b>	Point of Sale
<b>CGPO</b>	Corporate Governance Policies
<b>NIB</b>	Nib International Bank S.C
<b>EFT</b>	Electronic Funds Transfer
<b>ICT</b>	Information and Communication Technology
<b>JOFI</b>	Journal of Financial Innovation
<b>Et Switch</b>	Ethiopian Electronic Banking Payment System
<b>OECD</b>	Organization for Economic Co-Operation and Development
<b>RTGS</b>	Real Time Gross Settlement
<b>R&amp;D</b>	Research and Development
<b>ADIB</b>	Addis International Bank
<b>BOA</b>	Bank of Abyssinia
<b>BIB</b>	Birhan International Bank
<b>CG</b>	Corporate Governance
<b>WTO</b>	World Trade Organization

## *Abstract*

*Corporate governance carries strategic importance and should be addressed correctly by decision makers. Corporate governance literature suggests that diverse boards are a part of good corporate governance practice. However, it is not clear how good corporate governance particularly diverse board characteristics might affect the corporate innovation and innovation search strategies. Impact of corporate governance on innovation is still an area of study that has not been adequately researched in Ethiopia. This study sought to establish the effect of corporate governance on innovation of private banks in Ethiopia. The objective was accomplished by assessing the effect of female directors in the board, size of the board, directors' educational qualification and board independence on innovation. Due to availability of recent data, the study had targeted population of nine private banks from all operated in Ethiopia namely Awash, Abyssinia, Wegagen, United, NIB, Dashen, Oromiya-Cooperative, Birhan and Addis bank. The study entirely used secondary data obtained from publicized annual reports and websites of the individual banks. The researcher employed explanatory research design to explain the situation. Result from regression analysis showed that independent variables (female directors in the board, board size, educational qualification of directors' and board independence) have significant positive effect on innovation (log of the numbers of automatic teller machines and point of sales terminal). The study thus concludes that the effect of corporate governance on innovation depends on the variables. The study thus recommends an evaluation of the board characteristics in private banks as it influences innovation.*

***Keywords:*** *Corporate Governance, Innovation, Private Commercial Banks, Board Composition, Board of Directors*

# **1 Chapter One - Introduction**

## **1.1 Background of the study**

Corporate governance is the set of processes, customs, policies, laws, and institutions affecting the way a corporation (or company) is directed, administered or controlled. Corporate governance also includes the relationships among the many stakeholders involved and the goals for which the corporation is governed (OECD, 2004).

In contemporary business corporations, the main external stakeholder groups are shareholders, debt holders, trade creditors, suppliers, customers and communities affected by the corporation's activities. Internal stakeholders are the board of directors, executives, and employees (Wanjama, 2014). The board of directors carries out a very important role in corporations. By advising and monitoring the managers, boards of directors reduce the agency costs and guide the companies to their missions. Hence, better and improved firm performance and subsequently enhanced overall value for the whole society start from the board rooms (Perihan et al, 2017). However, in today's world, better firm value is not the only goal for the corporations. Firms have to seek innovative technologies and ideas in order to survive in the long term. During the last decade, the corporate world has been that firms that cannot keep up with the latest technologies and don't adopt innovative approaches are doomed to failure (Perihan et al, 2017).

Banking plays an important role in the financial life of a business, and the importance of banks can be seen from the fact that they are considered as to be the life-blood of modern economy. Although no wealth is created by Bank, but their essential activities facilitate the process of production, exchange and distribution of wealth. In this way they become the effective partners in the process of economic development and growth (OECD, 2004).

The environment of the banking sector in Ethiopia is changing, and the one that we have now will be different from what we will have in five years – just like six years ago is no more the same as what we observe today, according to Adam Steyn, director, Financial Service Industry at Deloitte, a consultancy firm (Addis Fortune, Vol 16, No 794).

The fact that there is now stiff competition in the sector and that there is technological evolution integrated with the sector, are some of the factors pushing banks to develop strategies for the future. The banking sector has been relatively isolated from competition for a long time, staying relatively underdeveloped. The facts that local banks are a little bit protected make them lag behind in terms of technology, services, customer centricity and banking practices (NIB, 2018).

Over the past two decades, the sector has been known for supplying limited financial products, expensive branch expansions, low levels of technology utilization, huge reliance on manual work, and concentration on urban areas. Private Banks cannot continue doing business using such traditional business models in this very competitive industry (Addis Fortune, Vol. 16, No. 794).

The agency theory is a supposition that explains the relationship between principals and agents in business. Agency theory is concerned with resolving problems that can exist in agency relationships due to unaligned goals or different aversion levels to risk. The most common agency relationship in finance occurs between shareholders (principal) and company executives (agents). It assumes that all individuals act in their own interests with objectives of maximizing their personal welfare. As a result, there are inherent costs associated with a structure in which one individual (the principal) delegates or entrusts the management and control of their assets or affairs to another (the agent), especially where the agent is armed with more information than principal (Clarke et. al, 2012).

Company managers enjoy a high degree of knowledge about the business activities they supervise. This creates a conflict of interest, with self-serving managers making decisions that benefit them rather than the company owners or shareholders. When managers use employer information for personal gain, the event is considered a case of managerial opportunism. Several theories try to explain what events entice managers to engage in this practice (Watkins, 2017). One of the areas where managerial opportunism can occur is innovation investment expenditure. This is because managers may manipulate innovation investment when there is a conflict of interest between the principals (shareholders) and the agents (managers) of the firm.

Ethiopia's financial sector has undergone significant transformation in the last few years and that many new more efficient and real times financial systems have come into place. With the recent innovations in the commercial banking sector in Ethiopia, sound governance structure makes much easier for organizations to transform, innovate and come up with more efficient products and services.

Studies done locally have not looked at the relationship between corporate governance and financial innovation in private commercial banks in Ethiopia

## **1.2 Statement of the problem**

Individual and cross country studies show corporate governance in majority of the cases positively affects firms performance and in turn nations' economic growth (Marinko et.al 2016). Capabilities driven by corporate governance mechanisms such as presence of independent non-executive directors currently constitute the pivotal support of firm's innovation capacity (Alfredo et. al. 2017). Innovation provides a competitive advantage for organizations in the globalized business environment (Dreu, 2016; Eisenbeiss, et. al, 2016). In today's world, thus in order to succeed in the long term in the business, firms have to seek innovative technologies.

Corporate governance plays a vital role in maintaining the safety and soundness of financial system and the banking sector in particular. It gives way to balanced risk taking and enhances business prudence, prosperity and corporate accountability with ultimate objective of realizing long term shareholders value, as well as customers and other stakeholders' interest (NBE Directives, SBB/62/2015).

Despite the undeniable importance of corporate governance in explaining financial innovation, the impact of corporate governance on innovation is still an area of study that has not been adequately researched in Ethiopia. Focus on corporate governance in the financial sector is crucial mostly because the banking industry became highly exposed to scrutiny by the public and many lessons were learnt because of the risks involved including the adverse publicity brought about by failings in governance and stakeholder relations for instance, the collapse of large

companies such as Enron, World Com in early 2000s and Asian financial crisis of 1997-1998 (Dibra, 2016).

The studies locally have not looked at the relationship between corporate governance and innovation in private commercial banks in Ethiopia. This Study therefore is aimed at filling this gap by answering the following research question; what is the effect of corporate governance on innovation of private commercial banks in Ethiopia?

### **1.3 Objective of the study**

#### **1.3.1 General objective of the study**

The main objective of this study is to analyze the effects of corporate governance on the innovation of private commercial banks in Ethiopia.

#### **1.3.2 Specific objectives of the study**

- To assess the effect of female directors in the board on financial innovation of banks;
- To assess the effect of board size on financial innovation of banks
- To assess the effect of educational qualification of directors' on financial innovation of banks
- To assess the effect of board independence on financial innovation of banks

### **1.4 Significance of the study**

The study has the following theoretical and practical significances;

- As mentioned above in the main objective of the research, the aim is to examine the relationship between corporate governance and financial innovation of private commercial banks and it will contribute to commercial banks by identifying relevant corporate governance variables and how these governance variables affect financial innovation of selected private commercial banks in Ethiopia.

- It will add more knowledge on the concept of corporate governance and give more empirical finding on the relationship between corporate governance and financial innovation.
- It will also serve as a stepping stone for other researchers who aspire to make depth study about the issue under the study
- The study is helpful to various stakeholders in the banking industries who are interested in long term strategies in financial innovation as the new frontier in commercial banking. These stakeholders include shareholders, investors and creditors in such a way that they should be able to realize the potentials and scope for growth in innovation.
- The findings can further be applied by policy makers in the area of corporate governance in commercial banks. Policy makers can use the study findings to design policies that will encourage good corporate governance practices to impact on financial innovation.

## **1.5 Scope of the study**

Scope of the research is limited (to);

- ✓ In terms of target population, the study only targeted private commercial banks in Ethiopia by excluding state owned banks, other financial and non-financial institutions,
- ✓ In terms of time wise, it only considered recent period data from the year 2013/14 to 2016/17 in considerations of youngness of most commercial banks and current development of innovative banking products in the country.
- ✓ In terms of variables used for analysis for this research, extracted and based from in light of bank corporate governance directives issued in recent years by National Bank of Ethiopia (SBB/62/2015).

## **1.6 Limitations of the study**

The researcher encountered various limitations that were likely to hinder access to information sought by the study. The researcher encountered problems of time as the research was being undertaken in a short period with limited time for doing a wider research. The researcher also experienced a challenge in obtaining secondary data from the audited accounts of some of the

quoted banks since some of these banks did not disclose some aspects corporate governance or had not yet published audited accounts at the time of this research. Therefore, alternative sources of information had to be sought.

This study was centered on the relationship between corporate governance and financial innovation of private commercial banks in Ethiopia. The study did not consider any other factors that inevitably affect financial innovations in addition to corporate governance such as political, environmental and social-economic and technological. Similarly, there is the possibility of omission of governance variables that may be relevant in the performance equation or with strong relations to other governance mechanisms.

## **1.7 Outline of the study**

This paper is organized in six chapters. Chapter one is about general introduction on corporate governance and background of the study. Chapter two deals with review of literatures on theoretical and empirical evidences and concepts related to corporate governance, board structure and innovation. Besides to this it tries to give highlight on corporate governance in the context of country and briefly look at the innovation of private commercial banks in Ethiopia, using some general innovativeness indicators. Chapter three of this study deals with the conceptual framework and hypotheses development. Chapter four of the paper is on the research methodology employed for data analysis and testing of the hypotheses made in Chapter 3. Chapter five deals with data analysis and presentation; and the last chapter six is dedicated for discussion on the research findings, conclusion and recommendation.

## **2 Chapter Two – Literature Review**

### **2.1 Introduction**

The wave of financial crises of 1998 in Russia, Asia and Brazil, affected their entire economies and deficiencies in corporate governance endangered the stability of the global financial system. Corporate governance failures in United States and Europe caused some of the largest insolvencies in history. In the aftermath of these events, economists, the corporate sector and the policy makers worldwide recognized the potential long term consequences of weak corporate governance systems (Chandrajit et. al, 2015).

The principles of good governance are as old as good behavior, which needs no formal definition. However, in reference to corporate world, it has been defined by various persons, some of whom is described below just in order to satisfy that the vital details and sprit of the term are not missed.

The simplest and most concise definition of corporate governance was provided by the Cadbury Report in 1992, which stated: Corporate governance is the system by which companies are directed and controlled. Though simplistic, this definition provides an understanding of the nature of corporate governance and the vital role that leaders of organizations have to play in establishing effective practices. For most companies, those leaders are the directors, who decide the long-term strategy of the company in order to serve the best interests of the owners (members or shareholders) and, more broadly, stakeholders, such as customers, suppliers, providers of long-term finance, the community and regulators.

According to World Bank (2017), Corporate Governance is blend of law, regulation and appropriate voluntary private sector practices, which enables the corporation to attract financial and human capital to perform efficiently, and prepare itself by generating long term economic value for its shareholders, while respecting the interests of stakeholders and society as a whole.

Today, Corporate Governance is an inevitable topic of discussion in corporate boardrooms, academic roundtables, and for policy makers worldwide. Several events are responsible for the

heightened interest in corporate governance. Corporate implosions over the last ten years and the subsequent increased demand for continuous improvement and transparency in the boardroom have heightened the pace of change for board's worldwide (Chandrajit et. al, 2015).

Hence in light of such general and specific concepts on corporate governance practices; the current chapter is organized to validate the researchable problem of this study. Contextual and theoretical backgrounds of corporate governance & bank innovation and other pertinent concepts which have significance for the conceptual framework development of this study are also addressed in this chapter

## **2.2 Theoretical review**

The key theories on the relationship between corporate governance and financial innovation include Stakeholders' Theory, Agency Theory and Resource Dependency Theory.

### **2.2.1 Stakeholders' theory**

Any definition of a stakeholder must take into account the stakeholder–organization relationship. The best definition of this is by Freeman, who in 1984 defined a stakeholder as: ‘Any group or individual who can affect or [be] affected by the achievement of an organization's objectives’. This definition shows the important bi-directionality of stakeholders that they can be both affected by and all about stakeholder organization. Of course, some stakeholders will be in both camps.

When we think of stakeholders, it is possible to list many examples, but the ones that usually come to mind are shareholders, management, employees, trade unions, customers, suppliers, and communities. However, larger and more complex organizations can have many more stakeholders than these. Compare, for example, the different complexities of a small organization, such as a corner shop or street trader, with a large international organization such as a bank. The first important aspect of stakeholder theory is, therefore, to recognize that stakeholders exist and that the complexity and range of stakeholders relevant to an organization will depend on that organization's size and activities (ACCA P1, 2018).

The theory has an implication on the effect of corporate governance on financial innovation in commercial banks. Financial innovations in the banking industry include card banking, internet banking, mobile banking, agency banking and the like. The banks have relationships with the vendors (internet-banking platform vendors) and business partners (Agency banking) who are stakeholders. The theory focuses on managerial decision making and recognizes that interests of all stakeholders have intrinsic value and no sets of interests are assumed to dominate the other (ACCA P1, 2018).

### **2.2.2 Agency theory**

Agency theory formally came about in the 1970s, but its concepts have been seen throughout history. For example, for as long as people have done business with one another, the core components of agency theory and the types of conflicts it explains have existed. When farms first started selling their food to grocery stores, it created an agency relationship. When people started organizing financial life into institutions like banks and investment firms, this also created a new type of principal-agent relationship. Agency theory exists when an agency relationship is formed and conflicts or differences in opinion can arise in this relationship (ACCA P1, 2018).

Agency theory looks at the problems that can arise in any kind of agency relationship with principals and agents. Another example of an agency relationship is that of the relationship between stockholders and the CEO of a company. The stockholder is the principal who effectively hires the CEO to make decisions on their behalf. The core problems that can arise in this relationship are self-interested behavior and difference in attitude in regards to business decisions.

The implication of this theory on the financial innovation of commercial banks in Ethiopia can be seen in the transformation of bank products. The transformation agenda for banks is handled by the agents on behalf of the principals and it includes financial innovation in the commercial banks. An agency problem arises when there is a conflict of interest between the agents and the principals. Sound corporate governance is essential in the financial innovation of banks (ACCA P1, 2018).

### **2.2.3 Resource dependency theory**

It examines the relationship between organizations and the resources they need to operate. Resources can take many shapes or forms, including raw materials, workers, and even funding. If one company maintains the majority of a resource, then another company will become dependent on it in order to operate, creating a symbiotic relationship. Too much dependency creates uncertainty, which leaves organizations subject to risk of external control. External control may be imposed by the government or other organizations, and can have a significant effect on operations, such as funding or personnel policies. Managers strategize alternative business plans in order to lower this risk.

The importance of this theory was documented during the 1970s, when authors Jeffrey Pfeffer and Gerald R. Salancik published *The External Control of Organizations: A Resource Dependence Perspective*, which discussed their study of where power and dependence originate, and how organizations may use their power and manage those that are dependent upon them. Managers are constantly seeking advantages to improve partnerships with other organizations in order to strengthen their own.

The theory implies that the provision of resources enhances organizational functioning, firm's performance and its survival. Directors can be classified into four categories of insiders, business experts, support specialists and community influential's. The support specialists and business experts can assist the firms achieve financial innovation to support the firms performance. Sound identification and allocation of resources will assist in the financial innovation of banks.

Good corporate governance is based on four main principles: fairness, transparency, accountability and responsibility; and besides reducing the vulnerability to financial crisis, these principles reflect the standards necessary to provide legitimacy to the corporate sector and to broaden and deepen access to capital (OECD, 2004).

#### **2.2.4 Stewardship theory**

Davis, Schoorman, and Donaldson (1997) define stewardship theory as situations in which managers are not motivated by individual goals, but rather are stewards whose motives are aligned with the objectives of their principals. In the theory, the model of man is based on a steward whose behavior is ordered such that pro-organizational, collectivistic behaviors have higher utility than individualistic, self-serving behaviors. Where the interests of the steward and the principal are not aligned, the steward places higher value on cooperation and seek to attain the objectives of the organization. This behavior in turn will benefit principals. Stewardship theorists assume a strong relationship between the success of the organization and the principal's satisfaction. A steward who successfully improves the performance of the organization generally satisfies most groups, because most stakeholder groups have interests that are well served by increasing organizational wealth. The steward realizes the trade-off between personal needs and organizational objectives and believes that by working towards organizational, collective needs, personal needs are met.

The essential assumption underlying the stewardship theory is that the behaviors of the executive are aligned with the interest of the principals. Thus, stewardship theorists focus on structures that facilitate and empower rather those that monitor and control. When both the principal and the manager choose a stewardship relationship, the result is a true relationship that is designed to maximize the potential performance of the group.

### **2.3 Corporate governance**

Corporate governance is important to recognize that effective corporate governance relies to some extent on compliance with laws, but being fully compliant does not necessarily mean that a company is adopting sound corporate governance practices. Significantly, the Cadbury Report was published in the UK shortly after the collapse of Maxwell Communications plc, a large publishing company. Many of the actions that brought about the collapse, such as the concentration of power in the hands of one individual and the company borrowing from its pension fund in order to achieve leveraged growth, were legal at the time (OECD, 2004).

The Organization for Economic Co-operation and Development published its 'Principles of Corporate Governance' in 2004 and have since become an international benchmark for policy makers, investors, corporations and other stakeholders worldwide. The principles are non-binding and do not aim at detailed prescriptions for national legislations. They are evolutionary in nature and should be reviewed in light of significant changes in circumstances. These are;

**Rights of shareholders:** The corporate governance framework should protect shareholders and facilitate their rights in the company. Basic shareholder rights should include the right to secure methods of ownership registration, transfer shares, obtain relevant & material information on the corporation on timely and regular basis, participate & vote in general shareholder meetings, elect & remove members of the board and share in the profit of the corporation.

**Equitable treatment of shareholders:** All shareholders should be treated equitably (fairly), including, those who constitute a minority, individuals and foreign shareholders. Shareholders should have redress when their rights are contravened or where an individual shareholder or group of shareholders is oppressed by the majority.

**Stakeholders:** The corporate governance framework should recognize the legal rights of stakeholders and facilitate cooperation with them in order to create wealth, employment and sustainable enterprises. The rights of stakeholders that are established by law or through mutual agreements are to be respected. Where stakeholder interests are protected by law, stakeholders should have the opportunity to obtain effective redress for violation of their rights.

They, including individual employees and their representative bodies, should be able to freely communicate their concerns about illegal or unethical practices to the board and their rights should not be compromised for doing this.

**Disclosure and transparency:** Companies should make relevant, timely disclosures on matters affecting financial performance, management and ownership of the business. Disclosure should include, but not be limited to, material information on the financial and operating results of the company, major share ownership & voting rights, company's objectives, remuneration policy,

related party transactions, foreseeable risk factors, issues regarding employees and other stakeholders and governance structure and policies.

Board of directors: The board of directors should set the direction of the company and monitor management, in order that the company will achieve its objectives. The corporate governance framework should underpin the board's accountability to the company and its members. Board members should act on a fully informed basis, in good faith, with due diligence and care, and in the best interest of the company and the shareholders. Where board decisions may affect different shareholders group differently, the board should treat all shareholders fairly. They should apply high ethical standards and should be able to exercise objective independent judgment on corporate affairs. In order to fulfill their responsibilities, board members should have access to accurate, relevant and timely information.

### **2.3.1 Approaches to corporate governance;**

Most countries adopt a principles-based approach to corporate governance (OECD, 2004). This involves establishing a comprehensive set of best practices to which listed companies should adhere. If it is considered to be in the best interests of the company not to follow one or more of these standards, the company should disclose this to its shareholders, along with the reasons for not doing so. This does not necessarily mean that a principles-based approach is a soft option, however, as it may be a condition of membership of the stock exchange that companies strictly follow this 'comply or explain' requirement.

Some countries prefer a rules-based approach through which the desired corporate governance standards are enshrined in law and are therefore mandatory. The best example of this is the US, where the Sarbanes-Oxley Act lays down detailed legal requirements (ACCA P1, 2018).

### **2.3.2 The role of the board of directors;**

Nearly all companies are managed by a board of directors, appointed or elected by the shareholders to run the company on their behalf. In most countries, the directors are subject to periodic (often annual) re-election by the shareholders. This would appear to give the

shareholders ultimate power, but in most sectors it is recognized that performance can only be judged over the medium to long-term. Shareholders therefore have to place trust in those who act on their behalf. It is rare but not unknown for shareholders to lose patience with the board and remove its member's en masse (OECD, 2004).

The role of the board of directors was summarized by the King Report (a South African report on corporate governance) as:

- To define the purpose of the company
- To define the values by which the company will perform its daily duties
- To identify the stakeholders relevant to the company
- To develop a strategy combining these factors
- To ensure implementation of this strategy.

The purpose and values of a company are often set down in its constitutional documents, reflecting the objectives of its founders. However, it is sometimes appropriate for the board to consider whether it is in the best interests of those served by the company to modify this or even change it completely. For example, NCR Corporation is a US producer of automated teller machines and point-of-sale systems, but its origins lay in mechanical accounting machines (NCR represents National Cash Register). As cash registers would quickly become obsolete with the emergence of microchip technology, the company had to adapt very rapidly.

Whitbread plc originated as a brewer in the 18th century in the UK, but in the 1990s redefined its mission and objectives completely. It is now a hospitality and leisure provider (its brands include Premier Inn and Costa coffee) and has abandoned brewing completely.

The directors must take a long-term perspective of the road that the company must travel. Management writer William Ouchi attributes the enduring success of many Japanese companies to their ability to avoid short-term 'knee-jerk' reactions to immediate issues in favor of consensus over the best direction to take in the long-term (ACCA P1, 2018).

### **2.3.3 Structure of the board of directors;**

There is no convenient formula for defining how many directors a company should have, though in some jurisdictions company law specifies a minimum and/or maximum number of directors for different types of company. Tesco plc, a large multinational supermarket company, has 13 directors. Swire Pacific Limited, a large Hong Kong conglomerate, has 18 directors. Smaller listed companies generally have fewer directors, typically six to eight persons (OECD, 2004).

The board of directors is made up of executive directors and non-executive directors. Executive directors are full-time employees of the company and, therefore, have two relationships and sets of duties. They work for the company in a senior capacity, usually concerned with policy matters or functional business areas of major strategic importance. Large companies tend to have executive directors responsible for finance, IT/IS, marketing and so on. Executive directors are usually recruited by the board of directors. They are the highest earners in the company, with remuneration packages made up partly of basic pay and fringe benefits and partly performance-related pay. The chief executive officer (CEO) and the finance director (in the US, chief financial officer) are nearly always executive directors. Non-executive directors (NEDs) are not employees of the company and are not involved in its day-to-day running. They usually have full-time jobs elsewhere, or may sometimes be prominent individuals from public life. The non-executive directors usually receive a flat fee for their services, and are engaged under a contract for service (civil contract, similar to that used to hire a consultant).

Non-executive directors (NEDs) should provide a balancing influence and help to minimize conflicts of interest. The Higgs Report, published in 2003, summarized their role as:

- To contribute to the strategic plan
- To scrutinize the performance of the executive directors
- To provide an external perspective on risk management
- To deal with people issues, such as the future shape of the board and resolution of conflicts.

The majority of non-executive directors should be independent. Factors to be considered in assessing their independence include their business, financial and other commitments, other shareholdings and directorships and involvement in businesses connected to the company. However, holding shares in the company does not necessarily compromise independence. Non-executive directors should have high ethical standards and act with integrity and probity. They should support the executive team and monitor its conduct, demonstrating a willingness to listen, question, debate and challenge.

It is now recognized as best practice that a public company should have more non-executive directors than executive directors. In Tesco plc, there are five executive directors and eight independent non-executive directors. Swire Pacific Ltd has eight executive directors and 10 non-executive directors, of which six are independent non-executive directors.

An individual may be accountable in law as a shadow director. A shadow director is a person who controls the activities of a company, or of one or more of its actual directors, indirectly. For example, if a person who is unconnected with a company gives instructions to a person who is a director of the company, then the second person is an actual director while the first person is a shadow director. In some jurisdictions, shadow directors are recognized as being as accountable in law as actual directors (ACCA P1, 2018).

## **2.4 Corporate governance in Ethiopia**

In the last decades, the Ethiopian business environment gives little attention to – corporate governance. Representing the systems, laws and procedures that businesses operate with, corporate governance obtains considerable attention in global investment and trade spheres. Often, negotiating countries use them as important considerations to build their deliberations on (Tura, H., 2012).

Investors across the world consider corporate governance as an important indicator for investment decisions. Decisions, such as acquisition, partnership, joint ventures, merger or outsourcing, will all be defined by the strength and weakness of the corporate governance of companies in the business sphere (Addis Fortune, 2013 [ Vol. 14 ,No 709]).

Cognizant that negotiators have a detailed understanding of the corporate governance of businesses in their respective countries, therefore, they often align their deliberation in a way that does not harm, perhaps even benefits, the companies in their countries. Closer, however, corporate governance is provided with little attention, both by policymakers and businesspeople. It remains one area that regulators of the nation's business sphere still often overlook.

A latest effort by the Ethiopian Chamber of Commerce & Sectorial Associations (ECCSA) has brought the issue to light. By virtue of establishing a corporate governance institute, the Chamber at least seems to believe that withering the oncoming global and local tides could only be possible if the corporate governance of private companies in the country could be enhanced. No doubt then that its latest action is admirable in and of itself.

Even then, little can change in the business circle unless the policymakers give rightful attention to the state of corporate governance. The benefits of strong trade negotiations can trickle down to the society only through enterprises – be it governmental, private or public private partnerships. That is why corporate governance is an important element of market regulation (Addis Fortune 2013 [Vol. 14, No. 709]).

Global evidence, from the World Economic Forum's (WEF) Competitiveness Report to the World Bank's enterprise surveys, shows that Ethiopia is one of the poorest performers in terms of establishing a strong corporate governance culture in the business environment. Both reports, for example, show that accounting standards in the country are way below that of Sub-Saharan African countries. It is certain that the low quality of books of accounts will translate into low interest for investments when it comes to final decisions.

Indeed, competing with companies as complex as states, and even more, demands Ethiopian businesses to have strong structures and working procedures. This is not a tide that could be sailed through by the use of the traditional systems they remain to use. It rather demands a considerable leap in corporate governance elements, such as policies, laws, institutional arrangements, culture and values (Fikadu, 2013).

In improving their corporate governance structure, business will be able to enhance their sustainable profitability. They could take themselves away from their volatile state to one with solid institutional bases. Shocks, both external and internal, will have little impact on their sustainability.

A business sphere filled with companies having reliable corporate governance attracts investment. It could contribute its deserved share to the growth of the economy and related economic aspirations, such as full employment. Since risks will be minimized, then, returns on investments will be higher.

Of course, the picture closer is not all bleak. Recent years have seen some efforts by the state to push for better practices of shareholder treatment, boundaries of financiers, roles of boards, ethical business practice and public disclosure. But a lot remains to be done to elevate the whole practice up to globally competitive standards (Fikadu, 2013).

If anything, the focus ought to be on changing the attitudes of businesspeople and policymakers on the advantages of strong corporate governance. This, however, ought to not push aside the importance of putting into place stringent corporate governance regulation instruments. No doubt that this ought to be one aspect that the latest efforts of trade policy preparation and trade packaging, being undertaken by the Ministry of Trade (MoT), take into account (Addis Fortune 2013 [Vol. 14 ,No 709]).

National Bank of Ethiopia (NBE) has issued a new directive to govern corporate governance with the purpose of maintaining the safety and soundness of the financial sector; specifically in the banking sector. The directive came prior to the mass suspension of chief executives and the board of directors of Cooperative Bank of Oromia S.C. (Addis Fortune 2013 [Vol 14, No 709])

Coming into effect on September 21, 2015, the directive is expected to change dominant norms that have prevailed in the sector, guided by the General Commercial Code of 1960. Hussein A. Tura, lecturer in law, in a 2012 article entitled “Overview of Corporate Governance in Ethiopia”, indicated the inadequacy of the Commercial Code of Ethiopia in addressing specific issues of

corporate governance related to Boards of Directors (BoD), such as separation of the roles of nonexecutive directors and those of the Chief Executive Officer (CEO).

The new Corporate Governance Directive under Licensing & Supervision of Banking (SBB), which has 17 pages, covers a range of issues particularly prescribing changes in the mandates of board of directors (BoDs), and chief executive directors (CEOs), manner of election of Boards, and shareholders voting procedure (NBE,2015).

The directive also has the benefit of administrating wealth and income distribution at a country level, as managing the financial sector has implications for the whole economy, according to the National Bank of Ethiopia directives no.SBB/62/2015.

## **2.5 Financial innovation**

Financial innovation can be defined as the act of creating and then popularizing new financial instruments as well as new financial technologies, institutions and markets. It includes institutional, product and process innovation (Financial times, 2017). Institutional innovations relate to the creation of new types of financial firms (such as specialist credit card firms like MBNA, discount broking firms such as Charles Schwab, internet banks and so on).Product innovation relates to new products such as derivatives, securitized assets, foreign currency mortgages and so on. Process innovations relate to new ways of doing financial business including online banking, phone banking and new ways of implementing information technology and so on (Financial times, 2017).

Financial innovation is the unanticipated improvement in the array of financial products and instruments that are stimulated by unexpected change in customer needs and preferences, tax policy, technology and regulatory impulses (Bhattacharya & Nanda, 2000). The development in the Commercial Banking sector has improved the level of sophistication with new payment systems and asset alternatives to holding money. This has resulted mainly from technological advancement and increase in competition as the number of institutions increase. Development in payment systems have started to create close substitutes for hard currency, thus affecting a core part of banking.

According to Oloo (2007) other innovations in the banking industry include: increased use of paper based money instead of cash. The Central Bank of Ethiopia (NBE) launched Real Time Gross Settlement (RTGS) system known as the Ethiopian automated transfer system (EATS) in July 2013 in an effort to modernize the country's payment in line with global trends (NBE,2013). Noyer (2007) noted that financial innovation has not only opened up new opportunities for the sector participants, but also increased new market players arising from new products in the financial market. New financial innovations in the banking sector include card banking, mobile banking, internet banking and agency banking.

## **2.6 Financial innovation of private banks in Ethiopia**

Ethiopia's banking industry has had a lukewarm progression since the Bank of Abyssinia became a pioneer as the first bank of the country a century ago. In 1932, a directive from Emperor Haile Selassie ordered the British-owned bank's demise and the establishment of the Bank of Ethiopia, as the first locally owned bank (Addis Fortune, 2017).

During the Italian occupation, the country was host to experienced foreign banks in the likes of Banco Di Roma and Barclays Bank. At the end of the occupation, Development and Commercial Bank of Ethiopia emerged as the leading banks of the country. In time, the Addis Ababa Bank S.C. ventured into the industry as a privately owned bank. In the Dergue era, all banks were nationalized; foreign-owned banks merged and were incorporated as entity of the Commercial Bank of Ethiopia.

It was in the early 1990's that the Ethiopian government allowed the establishment of private banks in the country. This was done under the economic policy founded on market oriented values under the then new government. As a result, there are now 16 private banks operating in the country and their total capital is valued at 43 billion Birr at the end of June, 2016. Among these, only six have above one billion Br of paid up capital (Addis Fortune, 2017).

A recent Deloitte study noted how the local industry lags in terms of “innovation and technology, banking services, customer centricity and banking practices.” The Ethiopian banking industry, isolated from international competition, is about to drastically change as the country pursues foreign investment and attempt to join the World Trade Organization (WTO).

Payments in Ethiopia are still over 95pc cash based, which is changing at a snail pace. Whereas the latest report by the central bank of Kenya puts the latest number of mobile payments in the month of September 2016 at 130 million transactions, with over 33.4 million subscribers for 40 million populations. In the same month the number of transactions from cards (debit/credit/gift/prepaid) across ATMS and POS machines was well over 17.6 million. It is easy to see what a potential 90 million population brings, when these numbers can be achieved with a population of 40 million people (Addis Fortune, 2017).

### **2.6.1 Electronic banking**

Electronic banking is the use of computers to carry out banking transactions such as withdrawals through cash dispensers or transfer of funds at point of sale. A Point of Sale (POS) terminal is a device that provides customers of banks with access to financial transactions in public places. This machine solves the problem of carrying cash for the customers and decreases cash management cost for financial institutions. These days, POS accept not only debit and credit cards, but also gift cards and payroll cards. This gives flexibility, which means financial institutions can address all segments of their customer base (First data, 2018).

In Ethiopia, this trend has a very short history. The Commercial Bank of Ethiopia (CBE), a pioneer of this service, is engaging deeply in the deployment of the technology as a means of serving its customers. In addition to CBE, private banks are also using the machines in selected big institutions, such as starred hotels, supermarkets, gas stations and restaurants (Addis Fortune, 2017).

As it stands, the main problem of banks is to mobilize and maintain their deposit bases. Most depositors are afraid to keep all of their cash in the bank because they are not certain they will

get their money back at any given time. Improving the culture of using POS machines helps solve this problem.

A transaction made through a POS terminal enables the use of cash in deposit accounts for two purposes simultaneously. On the one hand, it enables the account holder to make any transaction without the physical presence of the cash. On the other, it enables the bank to use the cash for different purposes like credit for investors. This means specific sums of cash can add higher value in short time.

For financial institutions, a POS transaction is very profitable because it enables them to maintain their deposit base. Since it is the movement of cash from one account holder to the other, the banks' deposit base is still constant. In addition, it minimizes the cost of cash management and serving customers in the window (Addis Fortune, 2017).

Service providers, such as hotels and supermarkets, will also benefit. Having a POS machine minimizes manual processes involved in serving customers and enables service providers to focus on important activities other than cash management. The image of modernity it attaches to the service provider is also a huge plus.

Even if POS transactions are hugely beneficial, the absorption rate by cardholders is very low. This truth is exposed by the experience of CBE, which currently has 10,000 POS machines. In the past nine months of the fiscal year 2014/15, the bank's POS machines facilitated 228,903 transactions worth 553 million Br. This means that one POS machine processed an average of 23 transactions within nine months. This is very low compared to the average transaction that a given POS machine could facilitate (Addis Fortune, 2017).

The great cliff we should lay a bridge on is the perception gap. We can see the perception gap in two ways. First, there is the part relating to potential users have no idea how to use POS. The second part relates to those cardholders who are afraid of the system's reliability. Different solutions are necessary for both segments of potential users.

The main responsibility to fill this perception gap is that of the banks themselves and should entail more than promotion through mass media. In my opinion, it would be very effective if the service providers where the POS machines are installed could facilitate the process because they have direct participation at the point of transaction. They can offer to the customers the choice of paying through their card. But banks should also facilitate the process. In addition to the awareness creation, banks can make their POS machines accept all bank cards, as is the case with the ATM service. Of course, this may be difficult because all banks may not have similar levels of commitment and financial capacity to distribute the machines. Banks that have a higher number of POS machines may be at a disadvantage and those with the lowest number can be at an advantage. From the point of view of transforming the banking sector, collaboration would bring huge benefits and banks can find other ways to compensate their disadvantages.

The innovations in the banking field is mainly depends upon rapid growth in the technology. The banking industry has become one of the developing service sector industries in Ethiopia. Information technology is one of the most important facilitators for the transformation of the Ethiopian banking industry in terms of its transactions processing as well as for various other internal systems and processes.

**Automated Teller Machines (ATMs):** ATMs are widely used as electronic channels in banking. It is operated by plastic card with its special features. It is a computer controlled device at which the customers can make withdrawals, check balance without involving any individuals (PSS, 2016).

**Mobile Banking:** Refers to the use of a smart phone or other cellular device to perform online banking tasks while away from your home computer, such as monitoring account balances, transferring funds between accounts, bill payment and locating an ATM.

**Smart Cards:** It is a chip based card (micro chip). It is used for making purchases without the need of any pin. It is a powerful card which carries out functions of ATM card, Credit Card, Debit Card.

Debit card is a plastic card which provides an alternative payment method to cash for purchases. Functionally, it can be called an electronic check, as the funds are withdrawn directly from either the bank account or from the remaining balance on the card. It is used instead of a credit card to pay bills such as utilities, insurance and car payments.

A credit card is part of a system of payments named after the small plastic card issued to users of the system. It is a card entitling its holder to buy goods and services based on the holder's promise to pay for these goods and services. The issuer of the card grants a line of credit to the consumer (or the user) from which the user can borrow money for payment to a merchant or as a cash advance to the user.

The concept of Internet banking has been simultaneously evolving with the development of the World Wide Web. The online shopping promoted the use of credit cards through Internet. The first online banking service in US was introduced, in Oct 1994. The service was developed by Stanford Federal Credit Union, which is a financial institution (Addis Fortune, 2017).

### **2.6.2 Innovation score**

Innovation score is a score to measure people or organization or multiple dimensions relevant for innovation. It gives an indication how innovative a person or organization is. Elements that could contribute to an innovation score include such as resources invested (human and financial), number of new products being launched, creative/analytical capacity (ideation/evaluation, creativity, leadership and the like (Gamification, 2015).

Mark, M. (2017) has identified potential measures that will indicate if the organization is making discernible progress toward the four intended results such as increased no. of new ideas, improved quality of ideas, more efficient implementation of quality ideas and improved resultant success achieved from the implementation of new ideas. The potential measures are a ratio of number of new ideas per 100 employees and percent of new ideas selected for funding.

Adam (2014) was used innovation score as variable “Y” measure of number of electronic banking products such as internet, mobile and card banking turnover as dependent variable for the study.

New products has launched by Ethiopian private banks since 1991 afterwards are agent, mobile, internet, card, SMS banking and the like (Addis Fortune,2017). Some of the products of card banking are debit, credit and gift cards. These cards are used for operating automatic teller machines (ATM) and point of sales (POS) terminals (E-Banking manual, 2015). ATM and POS terminals are deployed by banks at various locations in the country.

## **2.7 Corporate governance relating to financial innovation**

In this section of the study is an attempt to make summarize empirical findings on corporate governance on financial innovation with related to financial sector.

### **2.7.1 Board room diversity and financial innovation**

Over the years, regulators have placed great emphasis on addressing different matters relating to the board of directors. Two prominent examples were: (i) stressing on the roles of non-executive directors as well as the importance of independence of the board in the Higgs Review in 2003; and (ii) emphasizing the significance of balancing skills and experience of the board members as in the Walker Review in 2010. Until recently, there has been an urge for diversifying the board. Intuitively, diversity means having a range of many people that are different from each other. There is, however, no uniform definition of board diversity. Traditionally speaking, one can consider factors like age, race, gender, educational background and professional qualifications of the directors to make the board less homogenous. Some may interpret board diversity by taking into account such less tangible factors as life experience and personal attitudes.

In short, board diversity aims to cultivate a broad spectrum of demographic attributes and characteristics in the boardroom. A simple and common measure to promote heterogeneity in the boardroom – commonly known as gender diversity – is to include female representation on the board.

Effect of board room diversity on enhanced corporate governance is hotly debated issue and it has been receiving a well-deserved, growing attention of many researchers. corporate governance literature has shown that beyond the effect on firm value (Carter et al.,2013;Erhardt et al 2003 Carter at al 2010) board room diversity enhances board room decision making by lessening the tendency to engage in groupthink (O'Connor,2006),increasing the diversity of opinions represented in the board room (Ramirez,2003 & Polden,2005) and having positive cognitive effects such as creativity, innovation, new ideas and insights (Ruigrok et al.,2007;Kang et al.,2007;Deutsch,2005). Therefore, diverse board rooms could fuel the innovation activities and influence the level of firm innovation. However, diverse boards might also have coordination problems, might lack cohesion and need a longer time to reach decisions in this perspective, it is important to understand whether boardroom diversity leads or hinders the innovation.

### **2.7.2 Size of the firm and financial innovation**

The adoption of innovation is related to size and age of the bank. Larger firms seem better suited to innovate, because innovation implies fixed costs that can be more efficiently recovered if a firm is large (Schumpeter, 1943). Similar firms could be better innovators due to superior managerial control and less bureaucracy (Scherer and Ross, 1990). Size of the bank relative to the market is important. Higher market share increases the incentive of banks to innovate (Bhattacharyya and Nanda, 2000).

stream, is considered one of the most important efficiency based indicators (ECB, 2010).

### **2.7.3 Profitability and financial innovation**

According to Silber (1983) and Lerner (2006) the impact of innovation on profitability is cumbersome and that if investing in financial innovation is a rational response to a lagging competitive position, it is not surprising that less profitable firms tend to be innovators. However, considering the high initial investment, more profitable firms seem to be well placed at innovating. Innovating banks tend to underperform less-innovating banks (Arnaboldi & Rossignoli, 2008).

#### **2.7.4 Board size and financial innovation**

Mohammed Belkhir (2009) found that a positive relationship between board size and performance, as measured by Tobin's Q and the return on assets. Maria et. al. (2014) showed that significant positive relationship between board size and bank performance. It is concluded that a large board size can enhance the bank performance in Pakistani scenario. Similarly, Adam Muturi (2014) found that board size had positive relationship with financial innovation.

#### **2.7.5 Board independence and financial innovation**

Benjamin et. al. (2016) found that firms which undergo a transition to more independent boards increase exploitation of previously successful area of expertise. They argued that the shift towards exploitation results from stronger board oversight which increases both managerial effort and risk aversion.

#### **2.7.6 Directors' educational qualification & financial innovation**

Jean-Philippe (2017) argued that board education on innovation may therefore be needed to enhance. If board members educated properly, they are add value to corporations. Dalzie et. al (2011) showed that the numbers of directors who have degrees from elite institutions positively impact research and development expenditures. Madalina Maria Girbina et. al (2017) found that a positive association between the proportion of board members holding a post graduate degree in financial fields and market based performance. They also found that the proportion of board members holding degrees in financial fields is higher in bigger firms and firms and firms with more concentrated ownership.

### **2.8 Empirical studies**

Juan, P. et. al. (2016) was conducted systematic literature review on the relationship between corporate governance and innovation. The main objective of the study was to determine the relevance that the academic world has given to the study of the relationship between corporate governance and innovation and to identify the key aspects of this relationship that deserve further

investigation. The finding showed that the main topics discussed include ownership concentration & the composition and structure of board of directors, whose impacts on innovation have been analyzed with scarce consensus. The study did not look at corporate governance as a determinant of financial innovation. It did not use empirical studies on the variables of corporate governance and innovation.

Sapra, H. et. al. (2014) developed a theory to show how external and internal corporate governance mechanisms affect innovation. They predicted a u-shaped relation between innovation & external takeover pressure, which arises from the interaction between expected takeover premia and private benefits of control. They found strong empirical support for the predicted relation. This study did not examine relationship between corporate governance and innovation.

An empirical study was done by Matthew et. al. (2012) by using Tobin's q models of investments to estimate the relationship between corporate governance and innovation activity. They found out that poor governance reduces innovation activity.

This study only looks at relationship between corporate governance and innovation but not the effect of corporate governance variables on financial innovation.

Filippo et. al. (2011) was survey on corporate governance and innovation. They concluded by suggesting that future research should focus more deeply on the interrelationship between the various dimensions of corporate governance and on their joint effect on firm innovation. The study did not look at corporate governance as a determinant of financial innovation.

Mat R. et. al. (2010) did a study to examine the moderating impact of the corporate governance mechanism on the relationship between innovation investment proxies by research and development (R&D) expenditures and firm performance. The sample of the study consists of non-financial public listed firms in Malaysia. 100 companies were selected based on disclosure of the R&D expenditures in their annual reports for the year 2005 to 2007. The study concluded that board compensation and frequency of board meeting are considered as important characteristics that would determine the effectiveness of the innovation investment. The study did not examine the relationship between corporate governance and innovation in the financial

sector especially banks. It also did base on board compensation and frequency of board meeting and did not consider other board structure.

Adam (2014) was studied the effect of corporate governance on innovation in Kenya. She did the study based in Kenyan banks with a target population of 43 commercial banks. She used secondary data sourced printed reports and from the year 2010 to 2014. The study found that corporate governance existed in all the banks but the board structures varied with bank. She also found out that board size, board independence and board diversity to have significant effect on the financial innovation whereas the size of the bank and number of committees has an insignificant effect. In conclusion in this study, corporate governance has a significant impact on innovation. The study did not include educational qualifications of directors and it includes size of the banks as corporate governance variables.

K.S R. et. al. (2016) did a study to determine the effect of corporate governance on financial performance of Ethiopian commercial banks.

The annual reports used as secondary source of data. The total population of the study consists of 19 banks operating in Ethiopia. The results indicated that disclosure practice, board size, board gender diversity and ownership type have not significant impact on the financial performance of Ethiopian commercial banks. However, asset size & capital structure have significant effect on both the return on equity and return on asset. The study did not examine the effect of corporate governance variables on financial innovation of commercial banks in Ethiopia.

Yohannes T.,(2016) did a study on the effect of corporate governance policy enforced by National Bank of Ethiopia, regulator of financial institution, on the performance of private commercial banks in Ethiopia. Primary and secondary source of data from 14 private banks in Ethiopia the year 2011 to 2016 used for the study. Deductive research approach and various statistical techniques used for the analysis. The study result showed that the corporate governance variables could have significant effect on bank performance (Return on Asset). This

study did not show the effect of corporate governance on financial innovation of private commercial banks in Ethiopia.

Getachew, H. (2014) was studied the impact of corporate governance on firm performance. The main objective of this study was to examine the relationship between corporate governance and the firm performance of selected Ethiopian insurance companies. The data was collected from 10 insurance companies in Ethiopia from the year 2008 to 2012. The study result showed that board gender diversity, firm size and leverage positively influence the financial performance of selected insurance firms in Ethiopia and they are significant based on return on equity; whereas board size and board composition has statistically insignificant impact on financial performance, but board size influence negatively and board composition influence positively the financial performance of selected insurance firms in Ethiopia. The study did not cover other financial institutions such as banks since only insurance co.s were studied. It did not look the effect of corporate governance on innovation of private commercial banks in Ethiopia.

## **3 Chapter Three – Theoretical Framework and Hypothesis Development**

### **3.1 Hypothesis**

#### **3.1.1 Female directors in the board and innovation**

As suggested by Miller and Triana (2017), the positive outcomes of board diversity help to relate board diversity to innovation. Board diversity provides the firm with human and social capital resources that help the board to generate ideas allocate resources and find opportunities, thereby increasing innovation. The board of directors is a crucial factor that supports all the innovation activities and influences the level of firm innovation (Zahra and Garvis, 2010).

Innovation plays a vital role for the company, and is considered as one of the most important predictors of firm performance (Torchia et al., 2011). Innovation is a key element for helping firms to gain competitive advantage (Hitt et al., 1996), expand market share (Franko, 1989) and increase their performance (Morbey, 1988). Some research investigated the link between governance and innovation strategies, focusing notably on the relationship between board demographic characteristics and firm innovation (Torchia et al., 2011).

Several studies have linked board diversity to innovation, as heterogeneity on boards can lead to broader range of ideas, greater creativity, thus higher level and quality of innovation. The heterogeneity of the top management team in terms of demographic characteristics such as age, nationality, gender, racial diversity, promotes innovation and in-fluencies the ideas and types of innovation in the firm (Hambrick and Mason, 1984; Torchia et. al., 2011; Olson et al., 2006; Østergaard et al., 2011; Talke et al., 2010; Carter et al., 2010). As Torchia et. al. (2011) highlight, only a few studies investigated the effect of such patterns of board diversity, such as gender or age, on innovation. In their study of the relationship between board diversity and firm performance, Miller and Triana (2009) suggest that innovation takes a mediating role, and they found a positive relationship between gender diversity and innovation. Torchia et al. (2011) found a positive link between gender diversity and firm organizational innovation, thus occurring on one specific pattern of diversity (gender) and one specific form of innovation (organizational

innovation). Consistent with these studies, this article aims at providing a better understanding of the link between board diversity and innovation, by considering various patterns of diversity as well as various types of innovation.

Therefore, we can expect female representation in the board enhance bank innovation.

Hypothesis (H1o) : Female representation in the board has a significant positive impact on bank innovation.

Hypothesis (H1a) : Female representation in the board has not a significant positive impact on bank innovation.

### **3.1.2 Board size and innovation**

Mohammed Belkhir (2009) found that a positive relationship between board size and performance, as measured by Tobin's Q and the return on assets. Maria et. al. (2014) showed that significant positive relationship between board size and bank performance. It is concluded that a large board size can enhance the bank performance in Pakistani scenario. Similarly, Adam Muturi (2014) found that board size had positive relationship with financial innovation.

Therefore, we can expect board size to positively affect firm innovation.

Hypothesis (H2o) : Board size has a significant positive impact on bank innovation.

Hypothesis (H2a) : Board size has not a significant positive impact on bank innovation.

### **3.1.3 Directors' educational qualification & innovation**

Jean-Philippe (2017) argued that board education on innovation may therefore be needed to enhance. If board members educated properly, they are add value to corporations. Dalzie et. al (2011) showed that the numbers of directors who have degrees from elite institutions positively impact research and development expenditures.

Madalina Maria Girbina et. al. (2017) found that a positive association between the proportion of board members holding a post graduate degree in financial fields and market based performance. They also found that the proportion of board members holding degrees in financial fields is higher in bigger firms and firms with more concentrated ownership.

Therefore, we can expect a positive relationship between directors' education qualification and bank innovation.

Hypothesis (H3o) : Directors' educational qualification has a significant positive impact on bank innovation.

Hypothesis (H3a) : Directors' educational qualification has not a significant positive impact on bank innovation.

#### **3.1.4 Board independence and innovation**

Benjamin et. al. (2016) found that firms which undergo a transition to more independent boards increase exploitation of previously successful area of expertise. They argued that the shift towards exploitation results from stronger board oversight which increases both managerial effort and risk aversion.

Therefore, we can expect a positive relationship between board independence and bank innovation.

Hypothesis (H4o) : Board independence has a significant positive impact on bank innovation.

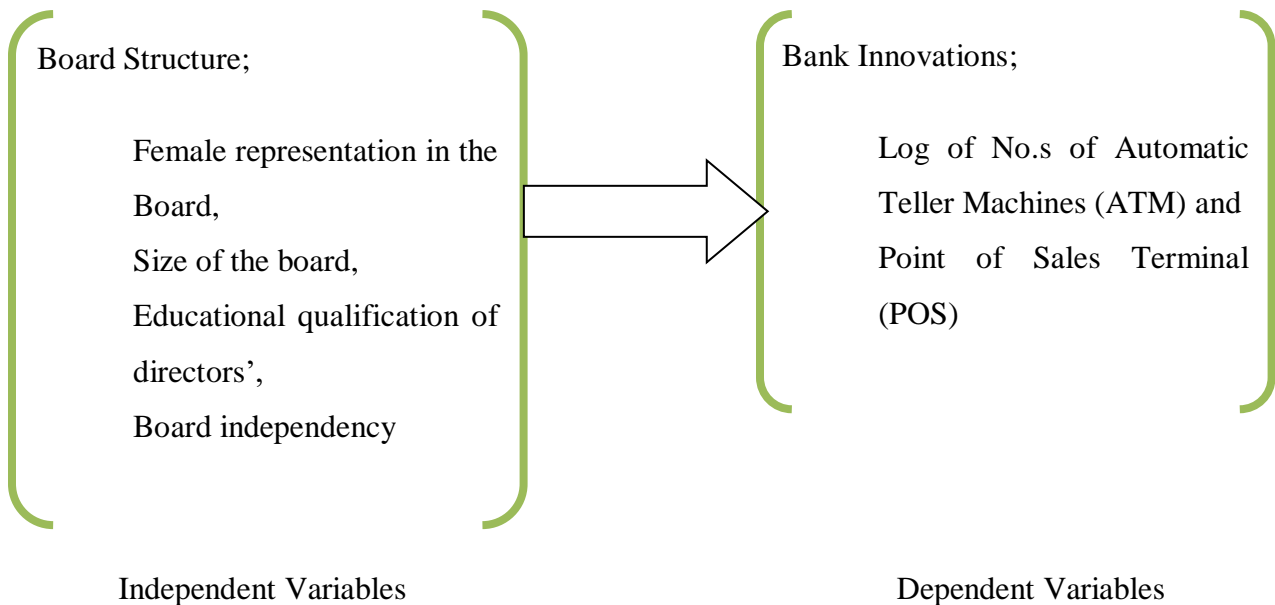
Hypothesis (H4a) : Board Independence has not a significant positive impact on bank innovation.

Sr. No.	Variables	Null Hypothesis (Ho)	Alternative hypothesis(Ha)
1	Female representation in the board	Female representation in the board has a significant positive impact on bank innovation.	Female representation in the board has not a significant positive impact on bank innovation.
2	Board Size	Board size has a significant positive impact on bank innovation.	Board size has not a significant positive impact on bank innovation.
3	Directors' Educational qualification	Directors' educational qualification has a significant positive impact on bank innovation.	Directors' educational qualification has not a significant positive impact on bank innovation
4	Board Independence	Board independence has a significant positive impact on bank innovation.	Board independence has not a significant positive impact on bank innovation

**Table 3. 1Summery - Research Hypothesis**

### **3.2 Conceptual framework development**

A framework drawn taking in to account the agency theory, stakeholder theory and resource dependency theory are shown in the figure below. It suggests in this study board composition is represented using the variables such as female representation in the board, board size, educational qualifications of the directors and board independence (see figure below).



**Figure 3. 1 Conceptual framework of corporate governance and innovation**

This study examines the relationship between corporate governance and innovation. The conceptual framework comprises of corporate governance variables such as board structure that are considered important mechanisms in affecting bank innovation. Bank innovation variables used in this study is represented by the log of the numbers of automatic teller machines and point of sales terminals.

Hence the variables considered in affecting innovation i.e. independent variables shown in the conceptual framework above are comprised of female representation in the board, size of the board, educational qualifications of directors and board independence that are found in the support of theories stated above and corporate governance policies of National Bank of Ethiopia (SBB/62/2015). The variables represents the dependent variable i.e. bank innovation are log of numbers of automatic teller machines and point of sales terminals deployed by private commercial banks in Ethiopia.

## **4 Chapter Four – Research Methodology**

### **4.1 Introduction**

This chapter outlines the methodology that was applied to carry out the study. The chapter contains section on research design, target population, data collection and data analysis.

### **4.2 Research design**

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose. This study sought to investigate the relationship between corporate governance and financial innovation of private commercial banks in Ethiopia. To conduct this study, explanatory research design was chosen. It is conducted for a problem which was not well researched before, demands priorities, generates operational definitions and provides a better-researched model. It is actually a type of research design which focuses on explaining the aspects of the study in a detailed manner.

### **4.3 Research population**

The population for this research comprised of private commercial banks in Ethiopia (See appendix) out of which researcher consider only selected 9 private commercial banks in Ethiopia namely Awash, Dashen, Wegagen, Abyssinia, NIB, United, Birhan, Oromiya-Cooperative and Addis bank by using purposive sampling techniques. It is due to the availability of recent data especially from the years ended June 30, 2014 to 2017 from amongst all private commercial banks in Ethiopia .According to National Bank of Ethiopia data, there are 16 private banking institutions (6 premier switch solutions member banks) licensed by NBE in accordance with Proclamation for Licensing and Supervision of Banking Business Proclamation no. 84/1994 (See appendix).

#### **4.4 Data collection**

Data was collected purely from secondary data sources. Secondary source of data on board profile was obtained from the published annual reports and company sources spanning four years (2013/14 to 2016/17). Abstraction method was used in collecting data. Published reports on board profile comprised of size of the board, number of females representing in the board, the number of independent directors among members of the board, and number of directors who holds post graduate degree.

Secondary data on innovation was obtained from the published annual reports and company sources as well as NBE's banking supervision reports for years 2013/4 to 2016/7 for number of automatic teller machines (ATMs) and point of sale terminals (POS).

#### **4.5 Data analysis techniques**

The independent variable which was corporate governance was measured in terms of the board profile and comprised of; board size, number of female directors representing in the board, number of independent directors among members of the board, and number of directors who holds post graduate degree. For the dependent variable: an innovation score comprised two innovation items namely: number of automatic teller machines (ATM) and point of sale (POS) turnovers for all 9 selected private commercial banks was developed (see appendix). A study period of 4 years (2013/4 to 2016/7) was used. The researcher were selected two innovation items only due to unavailability of the other items when the study explore secondary data such as mobile and internet banking and the like. Researcher also used four years recent data due to most of private banks in our sample banks started innovative products such as ATM(automatic teller machines) and POS(point of sale terminal) after the year 2013/14.

The Innovation equation for the study was formulated as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

Y: Innovation score measured by the log of number of ATM (automatic teller machines) and POS (point of sales terminals).

X1: Gender measured the number of female representing in the board

X2: Board size measured total number of board members

X3: Number of directors who holds post graduate degree

X4: Number of independent directors in the board

$\beta_0$ : Intercept

$\varepsilon$ : Standard Errors

$\beta_1, \beta_2, \beta_3, \beta_4$ , are the constants

To deal with multicollinearity, any of the variables affected was dropped to produce a model with significant coefficients. Significance of corporate governance variables as predictors of financial innovation was tested using the t-test. The significance of the overall model in explaining financial innovation through the independent variables was measured through the f-test. The analyzed data was presented using tables and figures.

## 5 Chapter Five – Data Analysis and Presentation

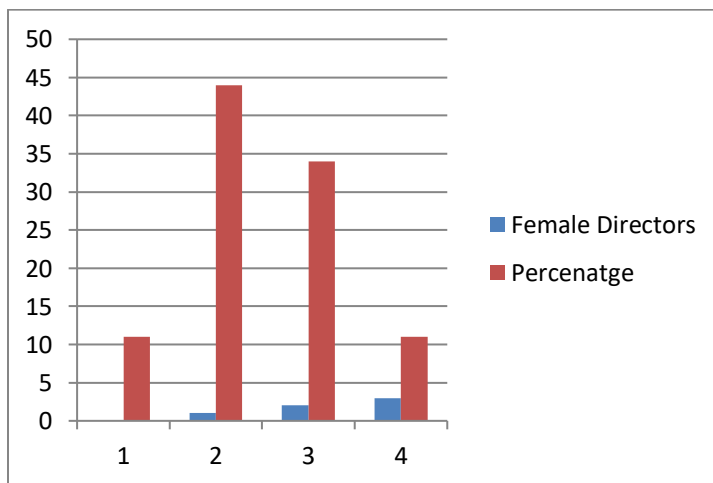
### 5.1 Introduction

This chapter presents analysis, findings and discussion of the study as set out in the research objective and research methodology. The study was aimed at establishing the effect of corporate governance on innovation of the private commercial banks in Ethiopia. As such the study was conducted on selected nine private commercial banks registered at the National Bank of Ethiopia (NBE), regulator of financial institution, where secondary data from the period end June 30, 2014 to 2017 was used in the analysis. Regression analysis was used for analysis the data.

### 5.2 Corporate governance variables

#### 5.2.1 Female directors representing in the board

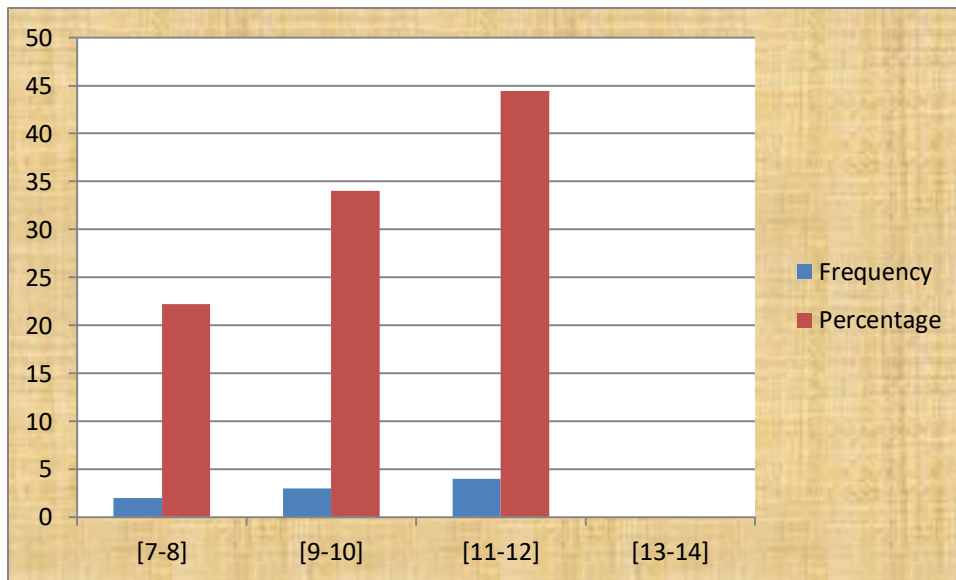
Board diversity was obtained determining the number of female board members. The findings established that 44% of the banks have 1 female board members, 34% with 2 ,11% with 3 and 11% with none female board members. This implies that the number of female directors was low as compared to the male. The findings are presented in figure 5.2.1 below.



**Figure 5.2 1 Female board members for sample of nine private banks in Ethiopia**  
(Source: Survey data by using Excel, 2017)

### 5.2.2 Board size

The study sought to establish the board size of the private commercial banks in Ethiopia. Majority of the commercial banks have between 11 and 12 board members with 44% and 34% of between 9 and 10 board members. The results are shown in figure 5.2.2 below. This shows a varying nature of the board sizes in the commercial banks. According to National bank of Ethiopia directives no SBB/62/2015, banks should have at least nine directors in the board. This implies large boards are more likely to be diverse as compared to smaller boards.

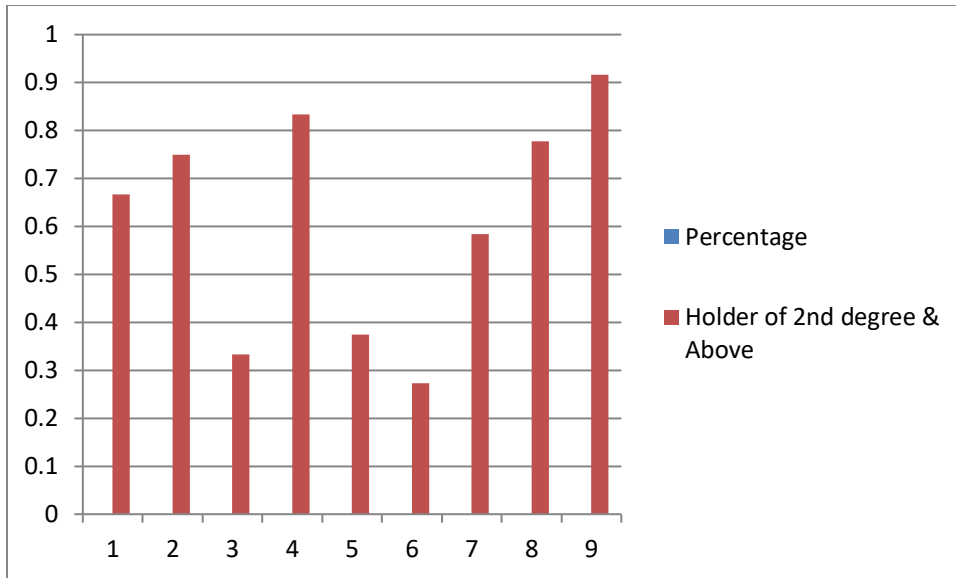


**Figure 5.2.2: Board Size for sample of nine private banks in Ethiopia**

(Source: Survey data using Excel application, 2017).

### 5.2.3 Directors' educational qualification

The findings indicated that amongst private commercial banks above 50% of boards of directors are holder of second degree and above and minimum number of directors with holder of first degree in the board. From the figure below more number of educated board members are in the board of private commercial banks (see pie chart below).

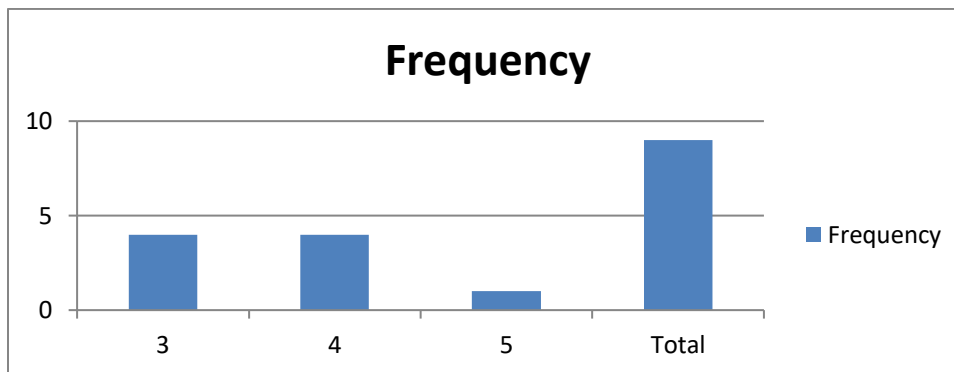


**Figure 5.2.3: Post graduate and above educational qualification**

(Source: survey data using Excel, 2017).

#### 5.2.4 Independent directors in the board

Board independence measured by the number of independent directors amongst members of the board. Figure below indicates that 45% or majority of private commercial banks have at least three independent directors in the board. 44 % of members of the board have 4 whereas 11 % have 5 independent directors of private commercial banks in Ethiopia.

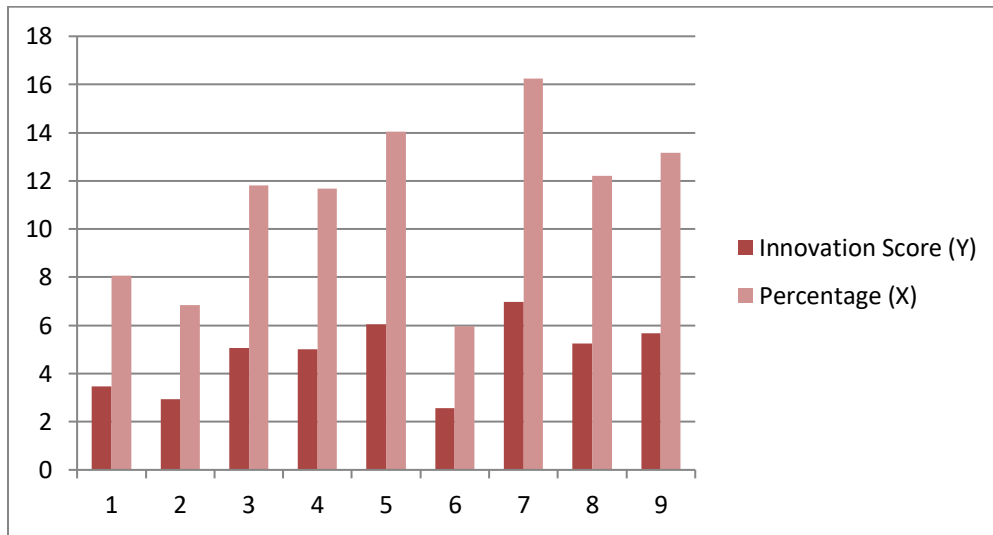


**Figure 5.2.4: Independent directors in the board**

(Source study data using Excel, 2017)

### 5.3 Innovation score

An innovation score was computed by determining the log of number of ATMs (automatic teller machine) and POS (point of sale) turnovers of the commercial banks over 4 years period (2013/14 to 2016/17). A higher score meant that the commercial bank was more innovative and vice versa. As shown in figure 5.3 below, majority of the commercial banks (67%) had an innovation score above average of 4.77. Notably the rest 33% had an innovation score of below average but greater than 2.56 whereas no bank was established to have an innovation score of below 2.56. This shows that the innovations in the commercial banks were relatively high.



#### Descriptive Statistics

	N	Minimum	Maximum	Mean
Inn. Score	9	2.56	6.98	4.7733
Valid N (listwise)	9			

**Figure 5.3 1: Innovation score for sample of nine private banks in Ethiopia (Source: Survey data, 2017)**

## 5.4 Descriptive statistics

From the table 5.4 below descriptive statistics of independent variables, board size has a mean of approximately 10 directors in the board of private commercial banks. A bank shall have at least nine directors (NBE directives No. SBB/62/2015). Hence, Banks have more than ten directors in the board. Banks in the sample have very few female directors in the board. There is a mean of approximately 1 female represented from 10 directors on average in the board. The board may preferably comprise of directors who as a group provide a mixture of gender (SBB/62/2015). They have more directors with post graduate qualification with a mean of 6 directors whereas in the board. On average 4 independent directors in the board. As per National bank of Ethiopia directives no SBB/62/2015, directors should be at least 3 independent directors in the board.

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Female	9	0	3	1.36	.822
Board Size	9	8	12	9.91	1.646
Education Post gradu.	9	3	11	6.03	2.812
Independent Directors	9	3	5	3.64	.653
Valid N (list wise)	9				

**Table 5.4 1 Descriptive statistics**  
(Source: Research Data Using SPSS Statistics, 2017)

## 5.5 Correlation analysis

Correlation analysis was used to determine the nature of the relationship between study variables. The Correlation coefficient enabled determination of the strength of a linear association between two variables and is denoted by  $r$  which can take a range of values from +1 to -1. As shown in table 5.5, female in the board has a Pearson correlation of 0.686 and a p-value of 0.000. This means that female representation in the board has a significant positive effect on the commercial banks financial innovation. The effect is significant at 95% confidence level since the p-value is less than 0.05.

Similarly educational qualifications of directors have insignificant positive effects on the commercial banks financial innovation as shown by correlation coefficients of 0.301 and p-value of 0.089. Board members education have insignificant effects on commercial banks innovation which have p-values greater than 0.05. Thus developing education of directors in the board and post graduate of directors correlate with the innovation score of the commercial banks.

Board size has Pearson coefficient of 0.372 and a p-value of 0.033. This means that size of the board has positive and significant effect on commercial banks financial innovation at 95% confidence level since the p-value of 0.033 is less than 0.05.

Board independence has a Pearson correlation of 0.404 and a p-value of 0.02. This means that independent directors in the board membership have a positive effect on the commercial banks financial innovation. The effect is significant at 95% confidence level since the p-value is less than 0.05(see table below).

Correlations

		Inn. Score	Female	Board Size	Education	Ind.Directors
Inn. Score	Pearson Correlation	1	.686**	.372*	.301	.404*
	Sig. (2-tailed)		.000	.033	.089	.020
	N	9	9	9	9	9
Female	Pearson Correlation	.686**	1	.648**	.319	.487**
	Sig. (2-tailed)	.000		.000	.070	.004
	N	9	9	9	9	9
Board Size	Pearson Correlation	.372*	.648**	1	.601**	.812**
	Sig. (2-tailed)	.033	.000		.000	.000
	N	9	9	9	9	9
Education	Pearson Correlation	.301	.319	.601**	1	.211
	Sig. (2-tailed)	.089	.070	.000		.240
	N	9	9	9	9	9
Ind.Directors	Pearson Correlation	.404*	.487**	.812**	.211	1
	Sig. (2-tailed)	.020	.004	.000	.240	
	N	9	9	9	9	9

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 5.5 1 Correlation Analysis**  
 ( Source: Research Data Using SPSS Statistics,2017)

## 5.6 Regression analysis

Multiple regression analysis was used to determine the effect of corporate governance on innovation of private commercial banks. As shown by table 5.6 below, there is a strong positive relationship between independent variables (Female directors representing in the board, board size, educational qualification of directors and board independence) and the dependent variable (innovation score) with a coefficient of correlation of 0.825. Coefficient of determination of 0.68 indicates that the independent variables could explain 68% of changes in innovation of the commercial banks.

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.825 <sup>a</sup>	.680	.635	.3930357

a. Predictors: (Constant), Ind.Directors, Education, Female, # of direc.

**Table 5.6 1 Model Summary**  
(Source: Research Data Using SPSS Statistics.)

The analysis of variance results are shown in table 5.6.2 below. As shown in the table, the model developed is significant at 95% confidence level since the p-value of 0.000 is less than 0.05. This means that the effect of independent variables on the dependent variable is significant.

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.208	4	2.302	14.902	.000 <sup>b</sup>
	Residual	4.325	28	.154		
	Total	13.533	32			

a. Dependent Variable: Inn. Score

b. Predictors: (Constant), Ind.Directors, Education, Female, # of directors

**Table 5.6 2 Model Analysis of Variance**  
(Source: Research Data Using SPSS Statistics.)

The model coefficients obtained by the study are shown in table 5.6.3 below. As shown in the table, female representation in the board has a coefficient of 0.715, board size of 0.52, and educational qualification of directors of -0.142 and board independence of -0.901. The positive coefficients of board size mean that an increase in these variables will lead to increase in commercial banks financial innovations. Increase in female directors will result in increased financial innovation. All the study variables are significant at 95% since their p-values are less than 0.05. This implies that independent variables are significant effect on financial innovation of commercial banks. The predictive model developed by the study is  $Y = 2.081 + 0.715X_1 + 0.52X_2 - 0.142X_3 - 0.901X_4$  where Y is the innovation score, X1 is the female directors in board, X2 is board size, X3 is educational qualifications of directors and X4 is board independence.

#### Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	2.081	.496		4.192	.000	1.064	3.098
Female	.715	.114	-.904	-6.271	.000	-.948	-.481
# of directors	.520	.125	1.317	4.153	.000	.264	.777
Education	-.142	.039	-.614	-3.608	.001	-.223	-.061
Ind. Directors	-.901	.231	-.904	-3.896	.001	-1.374	-.427

a. Dependent Variable: Inn. Score

**Table 5.6 3 Model Coefficients**  
(Source: Research Data Using SPSS Statistics.)

## 5.7 Discussion of findings

The study sought to establish the effect of corporate governance on financial innovation of commercial banks in Ethiopia. This was achieved by operationalization of corporate governance practices to measurable components. Correlation analysis was used to determine the effect of corporate governance practices on financial innovation while multiple regression analysis was used to determine the overall effect of corporate governance on financial innovation of commercial banks in Ethiopia.

Female in the board was established to have a Pearson correlation of 0.686 and a p-value of 0.000. This means that female representation in the board has significant positive effect on the innovation score. Educational qualifications of directors also were found to have insignificant positive effect on the financial innovation as shown coefficients of correlation of 0.301 and p-values greater than 0.05 (P-values of 0.089). This implies that an increase in these variables would result to increase financial innovation. Board size was established to have positive significant effect on the financial innovation as their p-values less than 0.05.

Multiple regression analysis was used to determine the effect of corporate governance on the financial innovation of commercial banks in Ethiopia. Its analysis obtained a coefficient of correlation of 0.825. This indicates a strong relationship between independent variables (female representation in the board, board size, educational qualifications of directors and board independence) and the dependent variable (financial innovation). The coefficient of determination of 0.680 indicated that the independent variables could explain up to 68% of changes in the financial innovation of the commercial banks. Hence, corporate governance practices have positive effect on commercial banks financial innovation.

The analysis of variance results indicated that the model developed was significant at 95% confidence level since the p-value of 0.000 was less than 0.05. This means that the effect of independent variables on the model has significant effect on the dependent variables. From the model developed, female representation had a coefficient of 0.715, board size of 0.520, educational qualifications of directors of -0.142, and board independence of -0.901. The positive

coefficients of board size show the positive effect they have on the financial innovations of the banks. This means that an increase in these variables will lead to improved financial innovation of the banks.

While an increase in the other variable, namely board independence has a negative effect and hence an increase in these variables would lead to reduced financial innovation due to their negative coefficients. These findings related with that of Mwangi (2013) who established that the board composition if effectively coordinated have a positive effect on the financial innovation. The predictive model developed by the study is  $Y = 2.081 + 0.715X_1 + 0.52X_2 - 0.142X_3 - 0.901X_4$  where Y is the innovation score, X1 is the female directors in board, X2 board size, X3 is educational qualification of directors and X4 is board independence.

## **6 Chapter Six – Summary, Conclusion and Recommendations**

### **6.1 Introduction**

This chapter presents summary of the study, conclusion and recommendation for corporate governance practice on innovation and areas for further research. Data analysis and conclusions were made in line to the study objective which was to determine the effect of corporate governance on the financial innovation of private commercial banks in Ethiopia.

### **6.2 Summary of the findings**

Better corporate governance practices are very much desired all over the world. However, it's not clear if better corporate governance improves the firm innovativeness or not. This study aims to list the main board characteristics, which lead to enhanced innovation. Result from The descriptive statistics showed that board size has a mean of 10 and a minimum of 9 directors in the board of private commercial banks. Hence, Banks have more than 9 directors in the board. Banks in the sample have very few female directors in the board. There is a mean of 1 female represented from 10 directors on average in the board. They have more directors with post graduate qualification with a mean of 6 directors. On average, 4 directors are independent in the board. As per National Bank of Ethiopia directives no SBB/62/2015, directors should be at least 3 which are independent.

Correlation analysis was used to determine the nature of the relationship between study variables. The result shown that female in the board has a Pearson correlation of 0.686 and a p-value of 0.000. This means that female representation in the board has a positive effect on the commercial banks financial innovation. The effect is significant at 95% confidence level since the p-value is less than 0.05.

Similarly board size has significant positive effects on the commercial banks financial innovation as shown by correlation coefficients of 0.372 which have p-values of less than 0.05. Qualification in the boards have positive effects on commercial banks innovation which have p-values less than 0.05 and correlation coefficient of 0.301.

Thus an increase education of directors in the board will highly improve the innovation score of the commercial banks. The findings relate to who Mutuku (2014) found that the board composition was the driving force for innovation in firms. Therefore though all the variables of corporate governance have a positive effect on the corporate governance, they differ in their level of significance.

Multiple regression analysis was used to determine the effect of corporate governance on innovation of private commercial banks. The result shown that there is a strong positive relationship between independent variables (female representation in the board, educational qualification of directors ,board size, and board independence) and the dependent variable (innovation score) with a coefficient of correlation of 0.825. Coefficient of determination of 0.68 indicates that the independent variables could explain 68% of changes in innovation of the commercial banks. This meant that the effect of independent variables on the model has significant effect on the dependent variables.

The model coefficients obtained by the study shown that female representation in the board has a coefficient of 0.715, board size 0.52, educational qualification of directors -0.142 and board independence -0.901. The positive coefficients of board size mean that an increase in these variables will lead to increase in commercial banks financial innovations. Increase in female directors will result in increased financial innovation. Also, increase educational qualification of and board independence of directors will decrease innovativeness. All the study variables are significant at 95% since their p-values are less than 0.05.

### **6.3 Conclusion**

Based on the study findings, the study makes a number of conclusions. First, the study concludes that commercial banks in Ethiopia have put in place corporate governance practices and continue to adopt financial innovation. The nature of the board composition however varied with the bank as evidenced by a difference in the trend of the variables. The difference in the innovation scores of the financial innovation could therefore be explained by the different board compositions of the banks.

The study also concludes that corporate governance practices have a positive and significant impact on the financial innovation of commercial banks in Ethiopia. Hence, a commercial bank that has adopted best corporate governance practices will be more innovative. This can be explained by the fact that the board highly influences the strategies/ ideas that are formulated and implemented and hence contributing to the banks financial innovation.

The study found out that female representation in the board and size of the board has a positive effect on the financial innovation. If a firm has more female directors and widen board size will perform better than one that does not. The study thus concludes that female directors and board size positively affect the financial innovation of the banks. Although the female directors' composition has been announced by the directive in 2015, they are not fully implemented yet. Once the composition is implemented very well, the effect of directors should be tested again.

The result showed that educational qualifications of directors and board independence do significantly contribute to the bank innovations. However, the results should be interpreted carefully, as educated directors in the board are very high and this leads to significant results. In 2015, National Bank of Ethiopia, regulator of financial institutions in Ethiopia, has passed directives requiring 75% of board members should have at least holder of first degree.

#### **6.4 Recommendations**

As mentioned on conclusion part of this research, the result obtained from the study shows that corporate governance positively significantly affects innovation of private commercial bank of Ethiopia. It is also noted that the main purpose of corporate governance is to safeguard and enhance the interest of both the shareholders and various stakeholders in particular and securing the safety & soundness of the financial system of the country in general. Ethiopian corporate governance for banks was enacted by National bank of Ethiopia and put in to effect from the year 2015 onwards. Due to recent development by the bank, most of private commercial banks come up in to practice thereafter. Innovation of bank products such as Automatic teller machine (ATM) and Point of sale terminal (POS) shows growth from the data collected from the study.

Hence, under mentioned points are assumed to bring about and further enhance practice of corporate governance and innovation;

In terms of board size, the banks should exercise their own board size in consistent with the minimum number of directors should have and for further enlargement of under mentioned directors in the board.

1. In terms of gender, female in the board shows very minimal in number. This is due to the fact that most of the boards are men dominated. It would therefore be of great interest that commercial banks come up with an affirmative action so as to increase the numbers and the role that women play in the board.
2. Commercial banks in Ethiopia should increase the number of educated directors in the board in consistent with total board members.
3. With regard to board independence, independent directors such as non-executive directors can bring new ideas and resource to the board according to resource dependency theory mentioned on literature review. Hence increasing these directors in compliance with the directives and other situations can develop further innovative banking products.
4. The study recommends that the board composition to be given much consideration among private commercial banks in Ethiopia. This is attributed to the fact that corporate governance practices greatly influence the financial innovation. Thus, the board needs to be well structured to ensure best corporate governance practices.

Lastly the following summary points are suggestion for further research in the area of corporate governance and innovation;

- This study focused entirely only the commercial banks that are listed at the National Bank of Ethiopia and this may not be the actual representation of the effect corporate governance has on the financial innovation of other firms.

To enable generalization of the research findings, future researchers could consider carrying out a similar study in a different sector or sectors to assess any variation in findings. Additionally, other variables of corporate governance should be considered other the ones investigated by this study.

- The present study sought to shed light on the effect of corporate governance practices on the financial innovation of commercial banks. A similar study should be carried out for a period to establish whether the results would be similar.
- The study used four variables as the measures of corporate governance in determining financial innovation and these were female representation in the board, size of the board, educational qualifications of the directors and board independence. Further studies in determining the relationship between corporate governance and financial innovation should use other variables such as the CEO duality, board roles, contingency and board effectiveness. This will enable comprehensive determination on the effect corporate governance has on the financial innovation.

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Bank Name	Year	Inn. Score	Female	Board Size	Education	Independent Directors
Dashen	2014	3	1	9	6	3
Dashen	2015	3.04	1	9	6	3
Dashen	2016	3.07	1	9	6	3
Dashen	2017	3.02	1	9	6	3
Wegagen	2014	2.39	0	8	6	3
Wegagen	2015	2.4	0	8	6	3
Wegagen	2016	2.52	0	8	6	3
Wegagen	2017	2.54	0	8	6	3
Abyssinia	2014	2.04	1	9	3	4
Abyssinia	2015	2.04	1	9	3	4
Abyssinia	2016	2.34	1	9	3	4
Abyssinia	2017	2.5	1	9	3	4
Awash	2014	1.99	1	12	10	4
Awash	2015	2.49	1	12	10	4
Awash	2016	2.72	1	12	10	4
Awash	2017	2.86	1	12	10	4
United	2014	2.13	1	8	3	3
United	2015	2.23	1	8	3	3
United	2016	2.26	1	8	3	3
United	2017	2.45	1	8	3	3
NIB	2014	1.9	2	11	3	4
NIB	2015	2	2	11	3	4
NIB	2016	2.55	2	11	3	4
NIB	2017	2.44	2	11	3	4
Cooperative	2015	1	2	12	7	5
Cooperative	2016	1.4	2	12	7	5

Cooperative	2017	1.61	2	12	7	5
Birhan	2015	0.7	2	9	7	3
Birhan	2016	1.34	2	9	7	3
Birhan	2017	1.99	2	9	7	3
Addis	2015	0.7	3	12	11	4
Addis	2016	1.18	3	12	11	4
Addis	2017	1.5	3	12	11	4

**Table 5.6 4 Collected Data Table  
(Source: Survey Data, 2018)**

## Regression Report

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Ind.Directors, Education, Female, # of direc <sup>b</sup>		Enter

a. Dependent Variable: Inn. Score

b. All requested variables entered.

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.825 <sup>a</sup>	.680	.635	.3930357

a. Predictors: (Constant), Ind.Directors, Education, Female, # of directors

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.208	4	2.302	14.902	.000 <sup>b</sup>
	Residual	4.325	28	.154		
	Total	13.533	32			

a. Dependent Variable: Inn. Score

b. Predictors: (Constant), Ind.Directors, Education, Female, # of directors

### Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	2.081	.496		4.192	.000	1.064	3.098
Female	-.715	.114	-.904	-6.271	.000	-.948	-.481
# of directors	.520	.125	1.317	4.153	.000	.264	.777
Education	-.142	.039	-.614	-3.608	.001	-.223	-.061
Independent Directors	-.901	.231	-.904	-3.896	.001	-1.374	-.427

a. Dependent Variable: Inn. Score

**Table 5.6 5 Regression Tables**  
 (Source: Research Data Using SPSS Statistics.)

## Correlation Report

### Correlations

		Inn. Score	Female	Board Size	Education	Independent Directors
Inn. Score	Pearson Correlation	1	.686	.372	.301	.404
	Sig. (2-tailed)		.000	.033	.089	.020
	N	9	9	9	9	9
Female	Pearson Correlation	.686	1	.648	.319	.487
	Sig. (2-tailed)	.000		.000	.070	.004
	N	9	9	9	9	9
Board Size	Pearson Correlation	.372	.648	1	.601	.812
	Sig. (2-tailed)	.033	.000		.000	.000
	N	9	9	9	9	9
Education	Pearson Correlation	.301	.319	.601*	1	.211
	Sig. (2-tailed)	.089	.070	.000		.240
	N	9	9	9	9	9
Independent Directors	Pearson Correlation	.404	.487	.812*	.211	1
	Sig. (2-tailed)	.020	.004	.000	.240	
	N	9	9	9	9	9

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 5.6 6 Correlation Table**  
(Source: Research Data Using SPSS Statistics.)

	Bank Name	Web Site	Year Est.	SWIFT
1	Abay Bank S.C.	<a href="http://www.abaybank.com.et/">http://www.abaybank.com.et/</a>	2010	ABAYETAA
2	Addis International Bank	<a href="http://www.addisbanksc.com/">http://www.addisbanksc.com/</a>	2011	ABSCETAA
3	Awash Bank	<a href="http://www.awashbank.com/">http://www.awashbank.com/</a>	1994	AWINETAA
4	Bank of Abyssinia	<a href="http://www.bankofabyssinia.com/">http://www.bankofabyssinia.com/</a>	1996	ABYSETAA
5	Berhan International Bank	<a href="http://berhanbanksc.com/">http://berhanbanksc.com/</a>	2010	BERHETAA
6	Bunna International Bank	<a href="http://www.bunnabanksc.com/">http://www.bunnabanksc.com/</a>	2009	BUNAETAA
7	Cooperative Bank	<a href="http://www.coopbankoromia.com.et/">http://www.coopbankoromia.com.et/</a>	2005	CBORETAA
8	Dashen Bank	<a href="http://www.dashenbanksc.com">http://www.dashenbanksc.com</a>	2003	DASHETAA
9	Debub Global Bank	<a href="http://www.debubglobalbank.com/">http://www.debubglobalbank.com/</a>	2012	DEGAETAA
10	Enat Bank	<a href="http://www.enatbanksc.com/">http://www.enatbanksc.com/</a>	2013	ENATETAA
11	Lion Int'l Bank	<a href="http://www.anbesabank.com/">http://www.anbesabank.com/</a>	2006	LIBSETAA
12	Nib Int'l Bank	<a href="http://www.nibbank-et.com/index.php">http://www.nibbank-et.com/index.php</a>	1999	NIBIETTA
13	Oromia Int'l Bank	<a href="http://www.orointbank.com/">http://www.orointbank.com/</a>	2008	ORIRETAA
14	United Bank	<a href="http://www.unitedbank.com.et/">http://www.unitedbank.com.et/</a>	1998	UNTDETAA
15	Wegagaen Bank	<a href="http://www.wegagenbanksc.com/">http://www.wegagenbanksc.com/</a>	1997	WEGAETAA
16	Zemen Bank	<a href="http://www.zemenbank.com/">http://www.zemenbank.com/</a>	2009	ZEMEETAA

**Table 5.6 7 List of Banks**  
**(Source: National Bank of Ethiopia Website)**